

IN THE CLAIMS

Claims 1-8 are pending. Claim 3 has been cancelled without prejudice or disclaimer. Claims 1, 2 and 4-8 and have been amended as follows:

Claim 1. (Currently Amended) A numerically controlled reciprocating submersible pump apparatus, comprising a sieve tube, a drive and a pump, the whole apparatus iscapable of being placed in an underground oil reservoir; ~~wherein~~ the drive consists of a stator having an upper end and a lower end and a reciprocating head with iron cores inside the stator; ~~the~~ the stator and the reciprocating head form a friction couple via the supporting guides and the reciprocating head iron cores; Characterized~~characterized~~ in that, with an airtight cavity, the stator's upper end of the stator is connected to the pump's lower end of the pump through the sieve tube; ~~the~~ the pump is connected to the an oil tube; ~~the~~ the stator's lower end is connected to the a balancing sieve tube, the an end plug and the an end coupler of the drive serially.

Claim 2. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 1, characterized in that there are many circular iron core winding groups comprising circular iron cores and circular windings inside the stator frame with the supporting guides between the winding groups; ~~the~~ the circular iron cores and the circular windings are arranged next to each other, ~~there~~ there are seal bushings on the circular inside surfaces of the circular iron cores and circular windings; ~~the~~ the seal bushings are connected to the endcovers; ~~All~~ and all these form the airtight cavity.

Claim 3. (Canceled).

Claim 4. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 2, characterized in that the supporting guides are circular, made from alloy; and have ~~The~~ the circular inside surfaces are made from alloy; ~~the~~ the supporting guides

have smaller inside diameters than the seal bushings.

5. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 1, characterized in that the reciprocating head's iron cores are circular and around the reciprocating head's a solid shaft of the reciprocating head with permanent magnets between the circular iron cores; ~~The and the~~ the circular iron cores' outside surfaces are made from alloy and they form a friction couple with the supporting guides via the alloy layers on the inside surfaces of the supporting guides.

Claim 6. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 5, characterized in that the permanent magnets are equally spaced between the reciprocating head's circular iron cores; ~~The and the~~ the magnets have smaller outside diameters than the circular iron cores.

Claim 7. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 1, characterized in that there is a pump housing outside ~~the~~ a pump cylinder of the pump, forming a circular space between them for sand residue; ~~The and a~~ a plunger push rod of the pump is connected to the reciprocating head shaft's an upper end of a solid shaft of the reciprocating head of the drive through the sieve tube.

Claim 8. (Currently Amended) The numerically controlled reciprocating submersible pump apparatus, according to claim 1, characterized in that the oil tube leads to the ground surface; and Windings' terminal from the stator is connected to the power terminals of an overground numerical control unit.